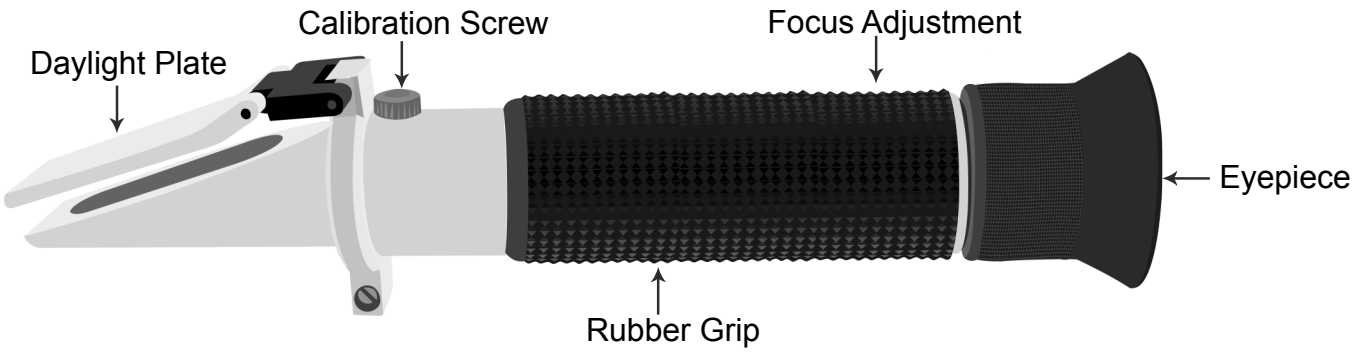
OPERATION MANUAL

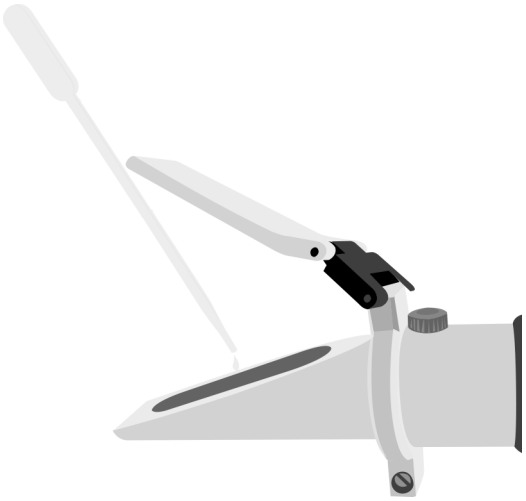
For Hand Held Refractometer

PARTS:



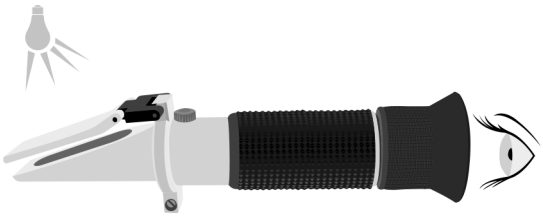
Step 1

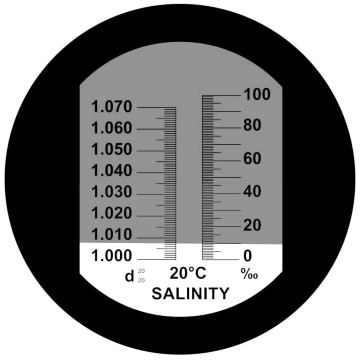
Open daylight plate, make sure no dust on the main prism, and place 2-3 drops of distilled water on the main prism. Close the daylight plate so the water spreads across the entire surface of the prism without air bubbles or dry spots. Allow the sample to remain on the prism for approximately 30 seconds before going to step 2. (This allows the sample to adjust to the ambient temperature of the refractometer)



Step 2

Aim the front end of the refractometer to the direction of light and look into the eyepiece. You will see a circular field with graduations down the center (you may have to twist the focus adjustment to see the graduation clearly). The upper portion of the field should be blue, while the lower portion should be white.





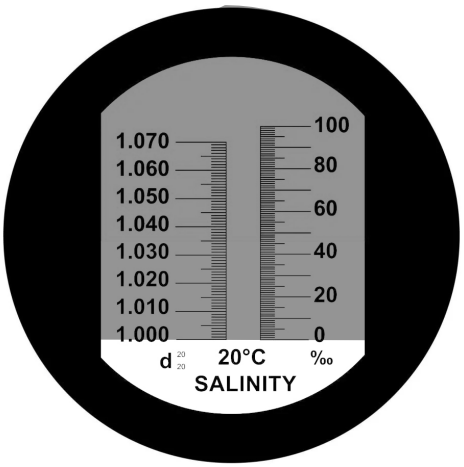
As seen when looking into the Instrument

(The Scales in Step 2 & 3 are for references only, please refer to your product for the specific scale.)

Step 3

Look into the eyepiece and turn the Calibration screw by using a screwdriver until the boundary between the upper blue field and the lower white field meet exactly on the 1.000 scale, such as shown in the image. This is the end of the calibration process.

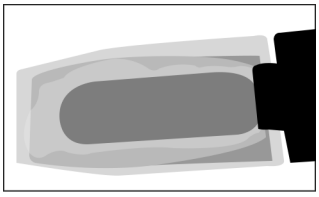
Note: Make sure the ambient temperature at the time of reading is 20°C/ 68°F. When working temperature of the room or environment (not the sample) changes by more than 5°F, we recommend recalibrating to maintain accuracy. If the instrument is equipped with Automatic Temperature Compensation system, the ambient working temperature of the room must be 20°C (68 °F) whenever the instrument is re-calibrated. Once calibrated, shifts in ambient temperature within the acceptable range (10°C-30°C) should not affect accuracy.



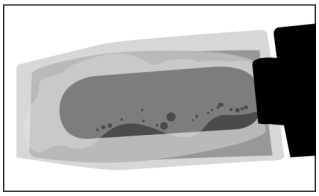
Calibrate to "1.000"

OPERATION

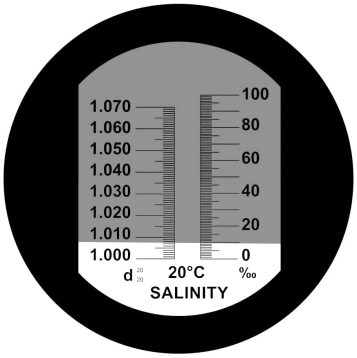
Place few drops of the sample to be tested on the main prism, and close the daylight plate. Make sure the sample is evenly distributed and air bubbles are eliminated on prism. Aim the front end of the refractometer to the direction of light. Take the reading where the boundary line of blue and white cross the graduated scale. The scale will provide a direct reading of the concentration.



Good and evenly distributed sample



Sample is not evenly distributed, and air bubbles are not eliminated.



Reading of Sample

(for reference only please refer to your product for the specific scale.)

WARNING - MAINTENANCE

1. Accurate measurement depends on careful calibration. The prism and sample must be at the same temperature for accurate results.

2. Do not expose the instrument to damp working conditions, and do not immerse the instrument in water. If the instrument becomes foggy, water has entered the body. Call a qualified service technician or contact your dealer.

3. Do not measure abrasive or corrosive chemicals with this instrument. They can damage the prism's coating.

4. Clean the instrument between each measurement using a soft, damp cloth. Failure to clean the prism on a regular basis will lead to inaccurate results and damage to the prism's coating.

5. This is an optical instrument; it requires careful handling and storage. Failure to do so can result in damage to the optical components and its basic structure. With care, this instrument will provide years of reliable service.